

REMARKS

Claims 1-23 are pending; claims 12-23 are withdrawn; claims 1-11 are amended herein, and therefore claims 1-11 remain for consideration.

Claims 1-11 are rejected under 35 U.S.C. § 112, second paragraph for, according to the Examiner, being indefinite. The rejection is traversed and reconsideration is respectfully requested, particularly in view of the clarifying amendments to the claims.

The claims are amended to remove the language which the Examiner believes to be indefinite. Accordingly, it is respectfully submitted that the § 112, second paragraph rejection is overcome.

Claims 1-11 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. Pat. No. 6,495,792. The rejection is traversed and reconsideration is respectfully requested, particularly in view of the clarifying amendments to the claims.

U.S. Pat. No. 6,495,792 (hereinafter referred to as "the '792 patent") is directed to a method and device for positioning edges in tube welding. A locator element intrudes into the tube and runs with the tube to position the edges of the tube-round ahead of the welding point with its laser beam. The running locator element has a plurality of stops arranged on a driven revolving chain. Forming elements act on the outside of the tube-round to position the edges.

The '792 patent does not teach or suggest a method for welding including pinching tools that are individually susceptible to power assisted adjustment essentially towards and away from the longitudinal axis of the tube round, as recited in the claimed invention. Accordingly, it is respectfully submitted that the rejection under the judicially created doctrine of obviousness-type double patenting is improper and should be withdrawn.

Claims 1, 8 and 11 are rejected under 35 U.S.C. § 102(b) as being anticipated by Hellman, Sr. (U.S. Pat. No. 4,995,549). The rejection is traversed and reconsideration is respectfully requested, particularly in view of the clarifying amendments to the claims.

Hellman is directed to a method and apparatus for forming and welding thin-wall tubing in a funnel die or with a series of sets of forming rollers. The tubing is then welded by a method and apparatus which includes simultaneous guiding of both the inner and outer peripheries of the tubing during the welding operation by a mandrel and a sleeve, respectively, so that a lack of rigidity of the tubing is not a limitation. The edges of the tubing are not clamped, but are allowed to float during welding.

Hellmann, however, does not teach or suggest pinching tools that are individually susceptible to power assisted adjustment towards and away from the longitudinal axis of the tube round, as recited in independent claim 1 of the present invention. On the contrary, the rollers 70-73 of Hellmann referred to by the Examiner, and as described in the specification and illustrated in Fig. 2(e), are not adjustable. The plurality of pinching tools disclosed and claimed in the present invention makes it possible to align the edges to be welded without use of the mandrel of Hellman, and differently shaped tubes can be handled without problems.

Moreover, Hellman shows a tube forming section 12 which is different from the pinching tool as recited in claim 1 of the present invention. The purpose of the claimed pinching tool is to bring the edges of the already rounded tube (which does not have to be round) into an alignment that is suitable for laser welding. At the welding module an even more precise alignment is then made by the adjustable element as recited in independent claim 8 of the present

invention. Furthermore, Hellman does not teach or suggest internally supporting the tube round on either side of its butting edges during welding, as recited in independent claim 11 of the present invention.

For an anticipation rejection to be appropriate, each and every element or limitation in the rejected claim must be shown in a single prior art reference used in the claim rejection. Because Hellmann does not disclose, teach or suggest the adjustable pinching rollers, adjustable elements, and provision for internally supporting the tube round on either side of its butting edges, as recited respectively in amended independent claims 1, 8 and 11 of the present application, it cannot be maintained that these independent claims are anticipated by Hellmann.

Claims 1-11 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Hellman, Sr. (U.S. Patent No. 4,995,549) in view of Kato et al. (U.S. Pat. No. 4,299,108). The rejection is traversed and reconsideration is respectfully requested, particularly in view of the clarifying amendments to the claims.

Kato is directed to cage-roll unit for metal pipe forming. The cage-roll unit has a pair of movable bases disposed on both sides of the mill axis with the space between the two movable bases being freely adjustable, and a pair of stands mounted on the movable bases, one on each. The stands rotatably support, on their surfaces facing the mill axis, two or more pairs of cage rolls, one pair following another along the mill line.

The Examiner asserts that Kato discloses a plurality of dressing tool/roller rings (72, 74, 76) wherein the dressing tool dips into the tube round. Contrary to the Examiner's assertion, Kato does not teach or suggest a dressing tool that dips into the tube round as claimed in the present invention. The cage rolls of Kato have a concave surface the curvature of which is identical with that of the piece P

being formed. (See Kato at column 4, lines 3-6). The concave curvature of the cage rolls of Kato are shaped to engage the external surface of the piece being formed. Kato expressly states that the cage rolls are provided at two positions, high and low, so that they contact the external surface of the piece being formed, slanting from above and below. (See Kato at column 4, lines 18-21, and at column 5, lines 8-16). Accordingly, the teaching of Kato does not materially add to the teaching of Hellman to render obvious claims 1-11.

In view of the foregoing, it is respectfully submitted that amended claims 1-11 are allowable. All issues raised by the Examiner having been addressed, an early action to that effect is earnestly solicited.

No fees or deficiencies in fees are believed to be owed. However, authorization is hereby given to charge our Deposit Account No. 13-0235 in the event any such fees are owed.

Respectfully submitted,

By Daniel G. Mackas
Daniel G. Mackas
Attorney for Applicant
Registration No. 38,541

McCormick, Paulding & Huber LLP
CityPlace II
185 Asylum Street
Hartford, Connecticut 06103-3402
(860) 549-5290